

U. S. DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS

INTERCHANGEABLE GROUND GLASS JOINTS

COMMERCIAL STANDARD CS21-30



ELIMINATION OF WASTE
Through
SIMPLIFIED COMMERCIAL PRACTICE

Below are described some of the series of publications of the Department of Commerce which deal with various phases of waste elimination.

Simplified Practice Recommendations.

These present in detail the development of programs to eliminate unnecessary variety in sizes, dimensions, styles, and types of over 100 commodities. They also contain lists of associations and individuals who have indicated their intention to adhere to the recommendations. These simplified schedules, as formulated and approved by the industries, are indorsed by the Department of Commerce.

Commercial Standards.

These are developed by various industries under a procedure similar to that of simplified practice recommendations. They are, however, primarily concerned with considerations of grade, quality, and such other characteristics as are outside the scope of dimensional simplification.

American Marine Standards.

These are promulgated by the American Marine Standards Committee, which is controlled by the marine industry and administered as a unit of the division of simplified practice. Their object is to promote economy in construction, equipment, maintenance, and operation of ships. In general they provide for simplification and improvement of design, interchangeability of parts, and minimum requisites of quality for efficient and safe operation.

Lists of the publications in each of the above series can be obtained by applying to the National Bureau of Standards, Washington, D. C.

U. S. DEPARTMENT OF COMMERCE

R. P. LAMONT, Secretary

BUREAU OF STANDARDS

GEORGE K. BURGESS, Director

INTERCHANGEABLE GROUND GLASS JOINTS

COMMERCIAL STANDARD CS21-30

[ISSUED AUGUST 25, 1930]

Effective Date For New Production, August 1, 1930



**UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1930**

CONTENTS

	Page
Acceptors.....	iii
Commercial standard CS21-30.....	2
General conference.....	4
Standing committee and effective date.....	4
Certification plan.....	5
Commercial standards service.....	5
Organization and duties of standing committee.....	6
Your cooperation.....	7
Acceptance of commercial standard.....	9
To the acceptor.....	10
Request for commercial standards.....	11
List of commercial standards.....	12

COMMERCIAL STANDARD CS21-30

ACCEPTORS

FIRMS

Alabama Polytechnic Institute, Auburn, Ala.
 Alaska Agricultural College and School of Mines, College, Alaska.
 Alfred University, Alfred, N. Y.
 American Dyestuff Reporter, New York, N. Y. (in principle).
 Antioch College, Yellow Springs, Ohio.
 Arizona State Teachers College, Flagstaff, Ariz.
 Arnstein, Dr. Henry, Philadelphia, Pa.
 Arsem, William C., Schenectady, N. Y.
 Baker University, Baldwin City, Kans.
 Baylor University, Waco, Texas.
 Bell & Beltz (Inc.), Philadelphia, Pa.
 Block Laboratories, Chicago, Ill.
 Broeman & Co., F. C., Cincinnati, Ohio.
 Buckmaster Laboratories (Inc.), Pittsburgh, Pa.
 Burrell Technical Supply Co., Pittsburgh, Pa.
 Burt Scientific Laboratory, R. C., Pasadena, Calif.
 Calkins Co., The, Los Angeles, Calif.
 Carnegie Institute of Technology, Pittsburgh, Pa.
 Catholic University of America, The, Washington, D. C.
 Central Scientific Co., Chicago, Ill.
 Chemical & Metallurgical Engineering, New York, N. Y. (in principle).
 Chemical Laboratory of the American Medical Association, Chicago, Ill. (in principle).
 Chemical Rubber Co., The, Cleveland, Ohio.
 Chemical Service Laboratories (Inc.), The, Philadelphia, Pa.
 Clemson Agricultural College of South Carolina, The, Clemson College, S. C.
 Colby College, Waterville, Me.
 Coleman & Co., W. B., Philadelphia, Pa.
 College of Pacific, Stockton, Calif.
 Columbia University, New York, N. Y.
 Consolidated Gas Co. of New York, New York, N. Y.
 Conwell & Co., E. L., Philadelphia, Pa.
 Corning Glass Works, New York, N. Y.
 Creighton University, Omaha, Nebr.
 Curtin & Co., W. H., Houston, Tex.
 Curtis & Tompkins (Ltd.), San Francisco, Calif.

Daigger & Co., A., Chicago, Ill.
 Denver Fire Clay Co., Denver, Colo.
 Detroit Testing Laboratory, The, Detroit, Mich.
 Douglaston Laboratories (Inc.), Douglaston, Long Island, N. Y.
 Drury College, Springfield, Mo.
 Dubuar-Rooney (Inc.), New York, N. Y.
 Dumas Laboratory, The, Atlanta, Ga.
 Eastern Scientific Co., Providence, R. I.
 Eberbach & Son Co. (Inc.), Ann Arbor, Mich.
 Eck & Krebs, New York, N. Y.
 Eimer & Amend, New York, N. Y.
 Ekroth Laboratories (Inc.), New York, N. Y.
 Empire Laboratory Supply Co. (Inc.), New York, N. Y.
 Erie Laboratory, The, Erie, Pa.
 Falkenburg & Co., Seattle, Wash.
 Fassett Co. (Inc.), The C. M., Spokane, Wash.
 Froehling & Robertson, (Inc.), Richmond, Va.
 Geijsbeek Engineering Co., Seattle, Wash. (in principle).
 General Testing Laboratories (Inc.), Detroit, Mich.
 George Washington University, Washington, D. C. (in principle).
 Georgia State College of Agriculture, Athens, Ga.
 Gettysburg College, Gettysburg, Pa.
 Gilmore Drug Co., W. J., Pittsburgh, Pa.
 Goodman-Kleiner Co., New York, N. Y.
 Greiner Co., The Emil, New York, N. Y.
 Greiner Co., Otto R., Newark, N. J.
 Griebel Instrument Co. (Inc.), Carbondale, Pa.
 Hamline University, St. Paul, Minn.
 Harvard Chemical Laboratory, Cambridge, Mass.
 Heller Co., Gerald K., Baltimore, Md.
 Hercules Powder Co., Wilmington, Del.
 Hospital Supply Co., The, and The Watters Laboratories Consolidated, New York, N. Y.
 Hunter College of the City of New York, New York, N. Y.
 Illinois Wesleyan University, Bloomington, Ill.

- Industrial Research Laboratories, Muskegon, Mich.
 Johns Hopkins University, The, Baltimore, Md.
 Kauffman-Lattimer Co., The, Columbus, Ohio.
 Kimble Glass Co., Vineland, N. J.
 Kruger & Blind Co., The, Philadelphia, Pa. (in principle).
 Laboratories of Charles L. W. Pettee, Hartford, Conn.
 Lafayette College, Easton, Pa.
 Law & Co. (Inc.), Wilmington, N. C.
 LaWall & Harrison, Philadelphia, Pa.
 Lawrence College, Appleton, Wis.
 Lazell, E. W., Portland, Oreg.
 Ledoux & Co. (Inc.), New York, N. Y.
 Lehigh University, Bethlehem, Pa.
 Levitt Ferguson Co., The, Baltimore, Md.
 Lewis Institute, Chicago, Ill.
 Little (Inc.), Arthur D., Cambridge, Mass.
 Loyola University School of Medicine, Chicago, Ill.
 Macalaster Bicknell Co., Cambridge, Mass.
 Macy & Co. (Inc.), R. H., New York, N. Y.
 Mariner and Hoskins, Chicago, Ill.
 Massachusetts Agricultural College, Amherst, Mass.
 Maywald, F. J., Carlstadt, N. J.
 Miami University, Oxford, Ohio.
 Michigan College of Mining and Technology, Houghton, Mich.
 Milwaukee Glass Works (Inc.), Milwaukee, Wis.
 Miner Laboratories, The, Chicago, Ill.
 Minnesota Testing Laboratories (Inc.), Duluth, Minn.
 Mississippi A. and M. College, A. and M. College, Miss.
 Missouri School of Mines and Metallurgy, Rolla, Mo.
 Monmouth College, Monmouth, Ill.
 New Jersey Laboratory Supply Co., Newark, N. J.
 New Mexico School of Mines, Socorro, N. Mex.
 New Mexico State Highway Testing Laboratory, Las Cruces, N. Mex.
 North Carolina State College, Raleigh, N. C.
 North Dakota Agricultural College, Fargo, N. Dak.
 Ohio University, Athens, Ohio.
 Oklahoma A. & M. College, Stillwater, Okla.
 Oregon Institute of Technology, Portland, Oreg.
 Pacific Coast Testing Laboratory, Seattle, Wash.
 Paquin, Felix, Galveston, Tex.
 Parker Laboratory, Charleston, S. C.
 Pennsylvania State College, The, State College, Pa.
 Philadelphia Textile School, Philadelphia, Pa.
 Phillips University, Enid, Okla.
 Phoenix Chemical Laboratory (Inc.), Chicago, Ill.
 Pratt Institute, Brooklyn, N. Y.
 Purdue University, Lafayette, Ind.
 Refinery Supply Co., The, Tulsa, Okla.
 Rensselaer Polytechnic Institute, Troy, N. Y.
 Rice Institute, The, Houston, Tex.
 Robertson & Co., John H., Chicago, Ill.
 Schaar & Co., Chicago, Ill.
 Schwarz Laboratories (Inc.), New York, N. Y.
 Scientific Glass Apparatus Co., Bloomfield, N. J.
 Scientific Supplies Co., Seattle, Wash.
 Skidmore College, Saratoga Springs, N. Y.
 Snell, Foster D., Brooklyn, N. Y.
 South Dakota State College, Brookings, S. Dak.
 Southern Testing Laboratories (Inc.), Birmingham, Ala.
 Specialty Glass Co., Chicago, Ill.
 Stanford University, Stanford University, Calif.
 Stetson University, John B., De Land, Fla.
 Stillman & Van Sieten (Inc.) and Hochstadter Laboratories (Inc.), New York, N. Y.
 Swarthmore College, Swarthmore, Pa.
 Syracuse University, Syracuse, N. Y.
 Testing & Research Laboratory, Madison, Wis.
 Textile Mill Service, Providence, R. I.
 Thomas Co., Arthur H., Philadelphia, Pa.
 Twining Laboratories, The, Fresno, Calif.
 University of Chicago, Chicago, Ill.
 University of Georgia, Athens, Ga.
 University of Hawaii, Honolulu, Hawaii.
 University of Idaho, Moscow, Idaho.
 University of Kentucky, University Station, Lexington, Ky.
 University of Maine, Orono, Me.
 University of Maryland, College Park, Md.
 University of Michigan, Ann Arbor, Mich.
 University of Nevada, Reno, Nev.
 University of New Hampshire, Durham, N. H.
 University of North Carolina, Chapel Hill, N. C.
 University of Notre Dame, Notre Dame, Ind.
 University of Oklahoma, Norman, Okla.

University of Porto Rico, Rio Piedras,
P. R.

University of Texas, Austin, Tex.

University of Vermont, Burlington,
Vt.

University of Wyoming, Laramie, Wyo.

VanCleve Laboratories (Inc.), Minne-
apolis, Minn.

Virginia Military Institute, Lexington,
Va.

Wabash College, Crawfordsville, Ind.

Walker & Co. (Inc.), Geo. T., Minne-
apolis, Minn.

Waring & Williams Laboratories,
Joplin, Mo.

Washington and Lee University, Lexing-
ton, Va.

Washington University, St. Louis, Mo.

Wellesley College, Wellesley, Mass.

Westcott & Greis (Inc.), Los Angeles,
Calif.

Western Machinery Co., The, Wichita,
Kans.

Will Corporation, Rochester, N. Y.

Worcester Polytechnic Institute, Wor-
cester, Mass.

Yale University, New Haven, Conn.

FEDERAL GOVERNMENT

Bureau of Plant Industry, Department
of Agriculture, Washington, D. C.

Commissioner of Prohibition, Treas-
ury Department, Washington, D. C.

Department of the Interior, Wash-
ington, D. C.

Federal Specifications Board, Wash-
ington, D. C. (in principle).

Fixed Nitrogen Research Laboratory,
Department of Agriculture, Wash-
ington, D. C.

Hygienic Laboratory, Bureau of the
Public Health Service, Treasury De-
partment, Washington, D. C.

Treasury Department, Washington,
D. C.

INTERCHANGEABLE GROUND GLASS JOINTS

COMMERCIAL STANDARD CS21-30

On December 17, 1929, a joint conference of representative manufacturers, distributors, and users of laboratory glassware adopted a commercial standard for interchangeable ground glass joints. The industry has since accepted and approved for promulgation by the Department of Commerce the specifications shown herein.

The standard is effective from August 1, 1930.

Promulgation recommended.

I. J. FAIRCHILD,
Chief, Division of Trade Standards.

Promulgated.

GEORGE K. BURGESS,
Director, Bureau of Standards.

APPROVED.

R. P. LAMONT,
Secretary of Commerce.

COMMERCIAL STANDARD CS21-30

I. SCOPE

This standard covers interchangeable ground glass joints for laboratory and industrial glassware. It governs taper, diameter, and length of ground zone of the joint.

II. GENERAL REQUIREMENTS

Tube diameter.—The outside diameter of the tube proper shall correspond approximately to the outside diameter of the small end of the inner member of the ground joint.

Master gages.—All commercial standard interchangeable ground glass joints shall be made from working tools that have been checked with standard gages certified by the National Bureau of Standards. A set of standard master gages will be maintained at the above bureau for reference.

III. DETAIL REQUIREMENTS

Taper.—All commercial standard interchangeable ground glass joints shall have a taper of 1 to 10 on diameter.

Standard sizes ¹

	Standard joint No.								
	5	7	11	15	20	25	30	40	50
Approximate diameter, lower portion of ground zone.....	<i>mm</i> 5	<i>mm</i> 7	<i>mm</i> 11	<i>mm</i> 15	<i>mm</i> 20	<i>mm</i> 25	<i>mm</i> 30	<i>mm</i> 40	<i>mm</i> 50
Approximate length of ground zone.....	25	30	35	38	40	42	45	50	50

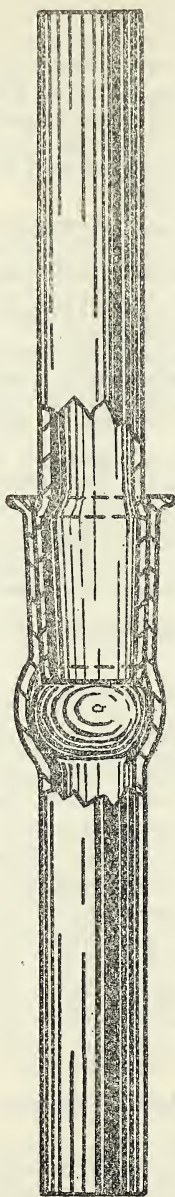
¹ Total length of assembled joint shall be approximately 30.5 cm (12 inches).

Marking.—All commercial standard interchangeable ground glass joints shall be marked on both members thus,



indicating standard taper, followed by the size, number, and a designating trade-mark of manufacturer or distributor.

OUTER
MEMBER



INNER
MEMBER



TAPER OF JOINT 1 TO 10 ON DIAMETER

117482°—30—2

GENERAL CONFERENCE

Pursuant to a request from manufacturers and distributors of laboratory glassware, a general conference of manufacturers, distributors, and users of interchangeable ground glass joints was held on December 17, 1929, at the National Bureau of Standards, Washington, D. C., to consider the establishment of commercial standard tapers and diameters on the basis of a preliminary draft submitted by a committee of manufacturers and dealers.

The following were present:

BEITLER, LEWIS E., sales department, Kimble Glass Co.
 CHASE, WILLIAM D., junior chemist, United States Public Health Service.
 CONNER, R. E., purchasing agent, Food, Drug, and Insecticide Administration, Department of Agriculture.
 COX, EDWARD H., associate professor of chemistry, Swarthmore College.
 ECK, FRANK M., partner, Eck & Krebs.
 EIMER, WALTER R., assistant secretary, Eimer & Amend.
 GARWOOD, CHARLES B., general superintendent, Carr-Lowrey Glass Co.
 GEYER, WILLIAM, proprietor, Scientific Glass Apparatus Co.
 HELSLEY, O. L. administrative assistant Fixed Nitrogen Research Laboratory, Department of Agriculture.
 KIMBLE, HERMAN K., general manager, Kimble Glass Co.
 KRAISSL, F., technologist, Corning Glass Works.
 LEVITT, W. T., Corning Glass Works.
 LEVOY, JOHN A., Bureau of Plant Industry, Department of Agriculture.
 PATTERSON, J. EDWARD, first vice president, Arthur H. Thomas Co.
 RILEY, J. GARFIELD, chemist, Treasury Department.
 SYMONDS, WALTER B., glass blower, Bureau of Chemistry and Soils, Department of Agriculture.
 TESTA, LEONARDO, glass blower, Fixed Nitrogen Research Laboratory, Department of Agriculture.

DEPARTMENT OF COMMERCE:

McCoy, H. B., specialties division, Bureau of Foreign and Domestic Commerce.
 MILLER, D. R., chief, gage section, Bureau of Standards.
 SHEPHERD, MARTIN, chemistry division, Bureau of Standards.
 WRAY, G. W., junior scientist, Bureau of Standards.
 STEIDLE, HARRY H., division of trade standards, Bureau of Standards.

Harry H. Steidle, of the division of trade standards, National Bureau of Standards, presided as chairman of the conference while J. Edward Patterson, first vice president of the Arthur H. Thomas Co., led the discussion of the proposed commercial standard.

Several minor changes were made, but, in general, all present recognized the needs of one standard for interchangeable joints.

Upon motion by William Geyer, seconded by Frank M. Eck, it was unanimously voted to adopt the proposed commercial standard as corrected and to recommend it to the industry for formal acceptance.

STANDING COMMITTEE AND EFFECTIVE DATE

A standing committee was appointed to represent the various phases of the industry which will receive all comments and suggestions for the improvement of the commercial standard. No definite interval was set for the revision of the standard, but the committee will meet at the call of the chairman whenever such need arises.

The standing committee consists of the following:

PATTERSON, J. EDWARD, chairman, Arthur H. Thomas Co.
 EIMER, WALTER R., Eimer & Amend.
 KRAISSL, FREDERICK, Corning Glass Works.

GEYER, WILLIAM, Scientific Glass Apparatus Co.

HERMAN K. KIMBLE, Scientific Apparatus Makers of America.

TESTA, LEONARDO, Fixed Nitrogen Testing Laboratory, Department of Agriculture.

COX, EDWARD H., Swarthmore College.

MILLER, D. R., National Bureau of Standards.

The conference voted that the commercial standard be made effective four months after formal acceptance by the industry. Formal acceptance was announced April 1, 1930, and the effective date was accordingly set at August 1, 1930.

CERTIFICATION PLAN

The certification plan as applied by the National Bureau of Standards to commercial standards consists in the compilation and distribution of lists of manufacturers who are willing, when requested to do so, to certify to purchasers that products supplied by them comply with all the requirements and tests set forth in nationally recognized commercial standards. The plan is also applied to selected Federal specifications. These lists are available, on request, to individual consumers, consumer groups, companies, and, in fact, to any prospective purchasers, for their guidance.

The benefits now derived from the use of specifications by large consumers are thus made immediately available to the small consumer, with incidental advantage to the larger consumers of convenience in ordering and accepting material with fewer laboratory tests, and of lowering the price by reason of broadening the field of supply. The manufacturer also benefits from the well-known economies accompanying "mass production."

The lists of manufacturers "willing to certify" to the quality of certain commodities are made by corresponding with, as nearly as possible, all the manufacturers of that product and listing only those who signify their willingness to certify to the purchaser, when requested to do so, that the commodities delivered actually comply with the commercial standard. Obviously, the purchaser making use of the lists of willing-to-certify manufacturers, will select therefrom such manufacturers as are known (or assumed) by him to be reliable.

The trend toward the purchase of materials of certified quality from sources shown on such willing-to-certify lists supplies added incentive to standardization on the part of other producers, and thus the benefits of the certification plan will be felt by purchasers either directly or indirectly, whether or not they make use of the plan themselves.

COMMERCIAL STANDARDS SERVICE

Industry has long sensed the need for a wider application and use of specifications developed and approved by nationally recognized organizations. To assist these bodies and the producers and consumers in securing this result and as a natural outgrowth of the movement toward elimination of waste through simplified practice, the National Bureau of Standards has set up a procedure under which specifications, properly indorsed, may be printed as official publications of the Department of Commerce and promulgated as "commercial standards." This service parallels that of simplified practice in many respects, and is available only upon request.

Broadly speaking, the aim is to continue the same character of cooperative service in this field that is being rendered in simplification. The division of trade standards is not designed to act as a standardizing body, nor will it engage in the preparation of specifications. Its service is mainly promotional in character, since its chief mission is to get behind a standard or a specification which any branch of industry may want to promulgate on a nation-wide basis; to determine its eligibility for promulgation; to publish and broadcast it in the event the prerequisites of procedure have been met, including a satisfactory majority acceptance; to facilitate the application of the certification plan for the assurance and convenience of the purchaser; to provide means for periodic audits of adherence; and to cooperate with the Bureau of Foreign and Domestic Commerce in determining the desire of industry relative to translation and promulgation of such specifications as a basis for foreign commerce.

In general, it may be said that a simplification covers types, sizes, and varieties of a commodity which are retained by industry on the basis of demand, whereas a commercial standard establishes definite requirements as to grade, quality, or dimensional tolerances in addition to any limitation of variety desired and accepted by the industry.

ORGANIZATION AND DUTIES OF STANDING COMMITTEE

In order to carry on the aims and desires of the industry in the standardization of their product, a standing committee is appointed at the general conference. This committee consists of members from each division of the industry, namely, producers, distributors, and consumers, and thus reflects the well-balanced viewpoint of all concerned. The members of the committee receive all suggestions regarding the commercial standard and consider its revision in the event that such action is desirable and mutually beneficial. If the commercial standard does not warrant revision, it is reaffirmed in its existing form, but if any important changes are found desirable their adoption is recommended by the committee, whereupon the industry is again solicited for written acceptance of the standard in its revised form.

The committee is, in effect, a centralizing agency for criticisms and comments regarding the commercial standard and is charged with the responsibility of recommending revisions to keep the standard abreast with current industrial practice. The proper functioning of the committee requires that, when necessary, its members be willing to attend meetings held at some central place, although in many cases it will be possible to conduct the work by correspondence. When any deceptions in reference to the commercial standard are reported to the standing committee, it applies moral suasion or such other corrective measures as seem desirable. The Department of Commerce has no "police power" to compel adherence; therefore it is incumbent upon the standing committee to do all in its power to encourage all divisions of the industry to follow the provisions of the commercial standard and contribute in every way possible to its general adoption and usefulness.

YOUR COOPERATION

As a producer, distributor, or consumer of some of the commodities for which commercial standards have already been established, you are in a position to avail yourself of the benefits arising from the use of quality standards and incidentally to add impetus to this method of eliminating waste. The first step is a declaration in favor of the standard by recording your intention to adhere, as closely as circumstances will allow, to the standards for those products which you may buy or sell. The receipt of your signed acceptance will permit the listing of your company in new editions of the commercial standards that you accept.

You will, of course, want to examine any commercial standards before signing a formal acceptance. The National Bureau of Standards will, therefore, furnish a copy of any standard under consideration for acceptance. To facilitate this procedure, a list appears on page 12 that may be checked and mailed to the division of trade standards, National Bureau of Standards, Washington, D. C. The publications may also be secured singly or in quantities at a nominal price from the Government Printing Office. Prices will be furnished upon request.

The acceptance of a commercial standard is an entirely voluntary action and applies to the production, sale, and use of stock items. It is not meant to interfere with the manufacture or sale of special sizes and types sometimes required.

Trade associations and individual companies often distribute large numbers of the printed standard for the information and guidance of their members or customers. In such cases it is possible to extend the scope and degree of adherence by urging each recipient to send in an acceptance, bearing in mind that the practical value of any standardization is measured by the observance it receives.

An acceptance form for the commercial standard herein covered is included on page 9.

ACCEPTANCE OF COMMERCIAL STANDARD

[Please sign and return this sheet to Division of Trade Standards, Bureau of Standards, Washington, D. C.]

Date_____

DIVISION OF TRADE STANDARDS,
NATIONAL BUREAU OF STANDARDS,
Washington, D. C.

GENTLEMEN: We, the undersigned, do hereby accept the original draft of the commercial standard as our standard practice in the {production¹
distribution¹} of interchangeable ground use¹

glass joints, beginning _____, and will use
Date
our best effort in securing its general adoption.

To permit intelligent review of the effectiveness of the commercial standard every year by an accredited committee of all interests, working in cooperation with the Department of Commerce, we plan to supply all data, upon request, which may be necessary for the development of constructive revisions. It is understood that any suggested modification will be submitted as soon as formulated, and shall not be promulgated until accepted in form similar to this recommendation.

Signature_____

(Kindly typewrite or print the following lines)

Title_____

Company_____

Street address_____

City and State_____

We are members of the following associations or other organizations interested in the production, sale or use of interchangeable ground glass joints:

¹ Please designate which group you represent by drawing lines through the other two. In the case of related interests, trade papers, colleges, etc., desiring to record their general approval, the words "in principle" should be added after the signature.

TO THE ACCEPTOR

In signing the acceptance blank, please bear the following points clearly in mind:

1. *Adherence.*—The Department of Commerce has no regulatory powers to enforce adherence to the commercial standards. Instead, this waste-elimination program is based on voluntary cooperation and self-government in industry. To make this specific standardization operate as a satisfactory example of self-government, it is highly desirable that it be kept distinct from any plan or method of governmental regulation or control. It will be successful according to the degree to which manufacturers, distributors, and purchasers adhere to its terms and conditions.

2. *The industry's responsibility.*—The department cooperates only on the request of the industry and assumes no responsibility for industrial acceptance or adherence. This program was developed by the industry on its own initiative. Its success depends wholly on the active cooperation of those concerned.

3. *The acceptor's responsibility.*—You are entering into an entirely voluntary arrangement, whereby the members of the industry—the distributors and consumers of the product, and others concerned—hope to secure the benefits inherent in commercial standardization. Those responsible for this standard realize that instances may occur in which it will be necessary to supply or purchase items not included therein. The purpose is, however, to secure wider support for nationally recognized standards covering grade, quality, and other characteristics of products. *Consumers* can make the program a success if, in their purchasing, they will make a definite and conscientious effort to *specify in terms of this commercial standard*.

4. *The department's responsibility.*—The function performed by the Department of Commerce is fourfold: First, to act as a referee to insure adequate consideration of the needs of all interests; second, to supply such assistance and advice in the development of this program as past experience with similar programs may suggest; third, to solicit and record the extent of adoption and adherence to the standard; and fourth, to add all possible prestige to this standardization movement by publication and promulgation if and when it is adopted and accepted by all elements directly concerned.

REQUEST FOR COMMERCIAL STANDARDS

Date.....

DIVISION OF TRADE STANDARDS,
NATIONAL BUREAU OF STANDARDS,
Washington, D. C.

GENTLEMEN: The undersigned wishes to examine the commercial standards checked on the reverse side of this page, with a view toward accepting them as our standard of practice in the production, distribution, or consumption of the standardized lines.

Signed.....
(Kindly typewrite or print the following lines)

Title.....

Company.....

Street address.....

City and State.....

(Cut on this line)

COMMERCIAL STANDARDS

CS. No.	Item	CS. No.	Item
0-30.	The commercial standards service and its value to business.	13-30.	Dress patterns.
1-28.	Clinical thermometers.	14.	Boys' blouses, waists, shirts, and junior shirts (in preparation).
2-29.	Surgical gauze (preparation postponed).	15-29.	Men's pajamas.
3-28.	Stoddard solvent.	16-29.	Wallpaper.
4-29.	Staple porcelain (all-clay) plumbing fixtures.	17-30.	Diamond core drill fittings.
5-29.	Steel pipe nipples.	18-29.	Hickory golf shafts.
6-29.	Wrought-iron pipe nipples.	19-30.	Foundry patterns of wood.
7-29.	Standard weight malleable iron or steel screwed unions.	20-30.	Staple vitreous china plumbing fixtures.
8-30.	Plain and thread plug and ring gage blanks (in preparation).	21-30.	Interchangeable ground glass joints.
9-29.	Builders' template hardware.	22-30.	Builders' hardware (nontemplate) (in preparation).
10-29.	Brass pipe nipples.	23-30.	Feldspar (in preparation).
11-29.	Regain of mercerized cotton yarns.	24-30.	Standard screw threads (in preparation).
12-29.	Domestic and industrial fuel oils.	25-30.	Special screw threads (in preparation).



